# Pacific Northwest Snow Fighters (PNS) Qualified Product List Category 1 - Corrosion Inhibited Liquid Magnesium Chloride

| Product Name                    | Manufacturer             | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|---------------------------------|--------------------------|--------------------------------|-----------------|---------------|
| FreezGard Zero with Shield LS   | IMC Kalium               | 21.0                           | 30%             | 5/19/1998     |
| *Magnum Extra                   | America West             | 8                              | 29%             | 5/19/1998     |
| *Magnum Plus                    | America West             | 5                              | 29%             | 5/19/1998     |
| *Magnum L.C.                    | America West             | 10                             | 29%             | 5/19/1998     |
| *Magnum                         | America West             | 17                             | 29%             | 5/19/1998     |
| *IB7                            | IMC Kalium               | 17                             | 29%             | 5/19/1998     |
| *IB4                            | IMC Kalium               | 23                             | 29%             | 5/19/1998     |
| MCP Deicer MF - (Caliber M10T)  | IMC Kalium               | 13.8                           | 26.5%           | 9/3/1999      |
| FreezGard Zero with TEA         | IMC Kalium               | 19.7                           | 30%             | 9/3/1999      |
| Ice Stop CI-2000                | Reilly Industries        | 22                             | 29.0%           | 8/21/2001     |
| Hydro-Melt                      | Cargill                  | 23.4                           | 30%             | 5/10/2000     |
| Caliber M1000                   | Envirotech Services Inc. | 22.3                           | 27%             | 8/8/2000      |
| *FreezGard Zero with Shield LSW | Great Salt Lake Mineral  | 28                             | 30%             | 8/15/2002     |
| *ICEBAN Performance Plus M      | Earth Friendly Chem.     | 8.4                            | 26%             | 8/15/2002     |
| *MeltDown with Shield LSW       | Envirotech Services Inc. | 23.5                           | 30%             | 10/8/2002     |

Category 2 - Corrosion Inhibited Liquid Calcium Chloride

| Product Name   | Manufacturer           | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|----------------|------------------------|--------------------------------|-----------------|---------------|
| *Cal-Ban Extra | America West           | 11                             | 32%             | 5/19/1998     |
| *Cal-Ban       | America West           | 26                             | 32%             | 5/19/1998     |
| *Cal-Ban L.C.  | America West           | 21                             | 32%             | 5/19/1998     |
| LIQUIDOW ARMOR | Dow Chemical           | 26                             | 30%             | 6/25/1999     |
| Winter Thaw DI | Tetra Technologies     | 16.5                           | 32%             | 9/13/1999     |
| CorGuard TG    | Tiger Calcium Services | 27.7                           | 29%             | 1/9/2001      |
| Geomelt C      | America West           | 21                             | 32%             | 8/15/2002     |

Category 3 - Non Corrosion Inhibited Liquid Calcium Magnesium Acetate

| Product Name   | Manufacturer            | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|----------------|-------------------------|--------------------------------|-----------------|---------------|
| Liquid CMA 25% | Cryotech                | -11                            | 25%             | 5/19/1998     |
| SC CMA 25%     | Sure Crop Farm Services | -2.8                           | 25%             | 9/13/1999     |

Category 4 - Corrosion Inhibited Sodium Chloride (Solid)

| Product Name             | Manufacturer | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|--------------------------|--------------|--------------------------------|-----------------|---------------|
| Inhibited Ice Slicer     | Envirotech   | 30                             | N/A             | 5/19/1998     |
| CG-90 Non-Phosphate 2.8% | Cargill      | 27                             | N/A             | 5/19/1998     |
| ClearLane PNS*           | Cargill      | 8.5                            | N/A             | 8/20/2002     |
| IMC CI SALT A 3.5        | IMC SALT     | 28                             | N/A             | 8/21/2001     |
| IMC CI SALT B 4.5        | IMC SALT     | 18.6                           | N/A             | 8/21/2001     |
| IceSlicer Elite          | Envirotech   | 26.6                           | N/A             | 8/15/2002     |

<sup>\*</sup>Product has been requalified.

Category 5 - Corrosion Inhibited Sodium Chloride Plus 10% Magnesium Chloride (Solid)

| Product Name            | Manufacturer | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|-------------------------|--------------|--------------------------------|-----------------|---------------|
| CG-90 Surface Saver 10% | Cargill      | 15                             | N/A             | 5/19/1998     |
| Meltdown 10             | Envirotech   | 30                             | N/A             | 5/19/1998     |
| Surface Saver PNS 10%   | Cargill      | 27.2                           | N/A             | 8/21/2001     |

## Category 6 - Corrosion Inhibited Sodium Chloride Plus 20% Magnesium Chloride (Solid)

| Product Name            | Manufacturer | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|-------------------------|--------------|--------------------------------|-----------------|---------------|
| CG-90 Surface Saver 22% | Cargill      | 26                             | N/A             | 5/19/1998     |
| Meltdown 20             | Envirotech   | 27                             | N/A             | 8/8/2000      |
| Surface Saver PNS 20%   | Cargill      | 22                             | N/A             | 8/21/2001     |

## Category 7 - Calcium Magnesium Acetate (Solid)

| Product Name | Manufacturer | Corrosion Rate % Effectiveness | % Concentration | Date Approved |
|--------------|--------------|--------------------------------|-----------------|---------------|
| CMA          | Cryotech     | -7                             | 96%             | 5/19/1998     |

#### Category 8 - Non Corrosion Inhibited Sodium Chloride (Solid)

| Product Name      | Manufacturer | Date Approved |
|-------------------|--------------|---------------|
| Cargill Dry Salt  | Cargill      | 6/1/1998      |
| Mineral Melt*     | NSC Minerals | 6/1/1998      |
| IMC Salt (Coarse) | IMC Salt     | 8/8/2000      |
| ESSA Salt         | ESSA         | 8/15/2002     |

<sup>\*</sup>Formerly NU-Salt

#### PNS Experimental Category - Liquid Non Chloride Corrosion Inhibited Products

| Product Name                   | Manufacturer           | Corrosion Rate % Effectiveness | % Concentration        | Date Approved |
|--------------------------------|------------------------|--------------------------------|------------------------|---------------|
| NC 1000 (Provisional Approval) | Glacial Technologies   | -3.1                           | 16 <sup>(1)</sup>      | 1/31/2001     |
| NC 2000 (Provisional Approval) | Glacial Technologies   | -6.1                           | 23 <sup>(1)</sup>      | 1/31/2001     |
| CF7                            | Cryotech               | 0.0                            | 50 <sup>(2)</sup>      | 6/20/2001     |
| CMAK                           | Cryotech               | 0.0                            | 12.5/25 <sup>(3)</sup> | 6/20/2001     |
| NC 3000 (Provisional Approval) | Glacial Technologies   | -3.5                           | 25 <sup>(4)</sup>      | 3/13/2002     |
| *TC ECONO                      | Tiger Calcium Services | 20.5                           | 20/2 <sup>(5)</sup>    | 10/25/2002    |

- 1 Based on a Total Potassium Value
- 2 Potassium Acetate
- 3 12.5% Calcium Magnesium Acetate and 25% Potassium Acetate
- 4 The product contains a 25% Potassium Acetate concentration. The product also contains 30% Carbohydrate material which is still under consideration as an active ingredient but at this time has not be included.
- 5 20% NaCl and 2% CaCl<sub>2</sub>

Those products marked with an asterisk (\*) indicates that the stratification can be seen and agitation is required.